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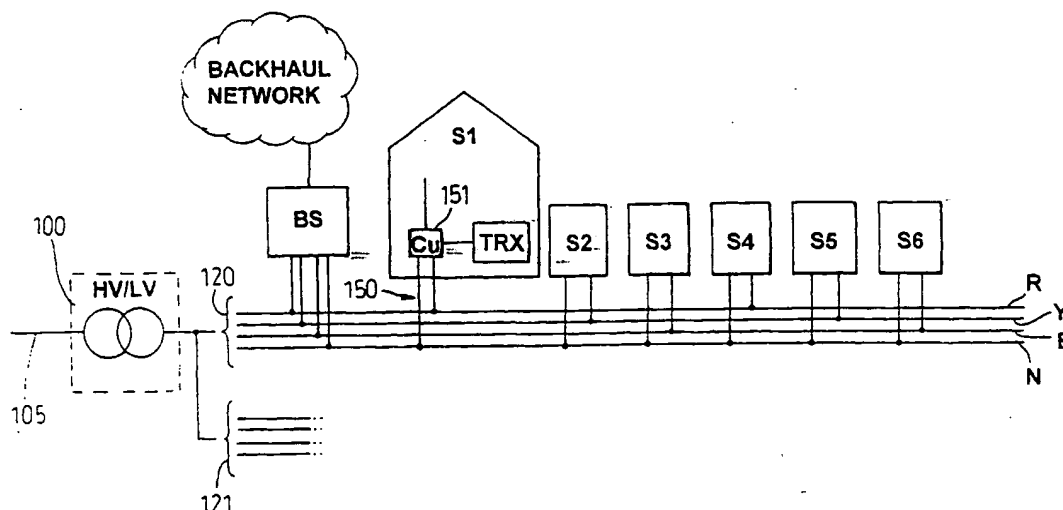
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(54) Reception of multicarrier signals over power lines

(57) An Orthogonal Frequency Division Multiplexed (OFDM) power line communications system comprising a power line for distributing electricity to a plurality of premises and a communication station coupled to the power line at one of the premises, which station uses a

part of the power line external to the premises as a communications medium. The communications station includes a receiver which comprises a clipping system adapted to clip an incoming OFDM data waveform, which includes a regular impulsive noise component, so as to reduce the level of noise on the waveform.

**Fig.3****EP 1 011 235 A3**



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 99 30 7702

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 98 10550 A (TELIA) 12 March 1998 (1998-03-12) * page 3, line 18. - line 31 *	1-14	H04L27/26 H04B3/54
E	EP 1 043 874 A (BBC) 11 October 2000 (2000-10-11) * abstract *	1-14	
T	WEILIN LIU ET AL.: "Nature of power line medium and design aspects for broadband PLC system" INTERNATIONAL ZÜRICH SEMINAR ON BROADBAND COMMUNICATIONS, 15 -- 17 February 2000, pages 185-189, XP010376458 Piscataway, US * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H04L H04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 March 2002	Examiner Scriven, P
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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11-03-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9810550	A	12-03-1998	SE 506639 C2	26-01-1998
			EP 0923823 A2	23-06-1999
			JP 2000517509 T	26-12-2000
			NO 990772 A	29-04-1999
			SE 9603192 A	25-11-1997
			WO 9810550 A2	12-03-1998
EP 1043874	A	11-10-2000	GB 2348783 A	11-10-2000
			EP 1043874 A2	11-10-2000

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